

IN THE CLAIMS:

The following listing of claims replaces all earlier listings and all earlier versions of the claims in the present application. All of the claims are shown below as changed, if at all, relative to original U.S. Patent 5,778,398.¹ Please cancel claims 41, 42, 44, 45, 47, 48, 50, 51, 53, 54, 56, 57, 59, 60, 62, and 63 without prejudice or disclaimer, add claims 67-80, and amend claims 1, 6, 11, 16, 21, 26, 31, 36, 43, 46, 49, 52, 55, 58, 61, and 64-66.

Q, Claim 1 (amended): An information processing apparatus [which] that transfers print data to a printer, said apparatus comprising:

determining means for determining whether the print data is to be transferred to the printer in a first mode or in a second mode; and

control means for causing said [information processing] apparatus to convert the print data into bit map data and to transfer the converted bit map data to the printer when said determining means determines that the print data is to be transferred in the first mode, and to convert the print data into print data which can be interpreted by the printer and to transfer the converted data to the printer when said determining means determines that the print data is to be transferred in the second mode,

¹/Claims 2-5, 7-10, 12-15, 17-20, 22-25, 27-30, 32-35, and 37-40 are identical to claims 2-5, 7-10, 12-15, 17-20, 22-25, 27-30, 32-35, and 37-40, respectively, of U.S. Patent 5,867,637, and claims 1, 6, 11, 16, 21, 26, 31, and 36 are shown with markings to indicate the amendments to those claims presented in the originally filed reissue application. The other pending claims, of which claims 43, 46, 49, 52, 55, 58, 61, and 64-66 are amended herein, are shown underlined, since they were either previously or currently added in this reissue application (see, e.g., MPEP § 1453). Applicant understands that it is not necessary to include a marked-up version of the amended claims on any separate pages, since this is a reissue application (see, e.g., 37 C.F.R. §§ 1.121(h) and 1.173(b)).

Q wherein the converted data in the second mode includes information indicative of a data type, and wherein the first mode is a mode in which said apparatus controls an output style of the print data and the second is a mode in which the printer controls an output style of the print data.

Claim 2 (original): An apparatus according to claim 1, wherein the print data comprises a character code and a control code written in a page description language.

Claim 3 (original): An apparatus according to claim 1, wherein the printer prints the bit map data transferred by said apparatus.

Claim 4 (original): An apparatus according to claim 1, wherein the printer interprets the print data transferred by said apparatus, converts the interpreted data into bit map data, and prints the converted bit map data.

Claim 5 (original): An apparatus according to claim 1, further comprising means for setting the first or the second mode.

Claim 6 (amended): An information processing apparatus [which] that transfers print data to a printer, said apparatus comprising:

determining means for determining whether the print data is to be transferred to the printer in a first mode or in a second mode; and

first conversion means for converting the print data into bit map data;

second conversion means for converting the print data into print data which can be interpreted by the printer, wherein the data resulting from the second conversion means includes information indicative of a data type; and

control means for causing said [information processing] apparatus

a, (1) to control either said first conversion means or said second conversion means to convert the print data in response to a determination made by said determining means and (2) to transfer the converted bit map data or the converted print data,

wherein the first mode is a mode in which said apparatus controls an output style of the print data and the second mode is a mode in which the printer controls an output style of the print data.

Claim 7 (original): An apparatus according to claim 6, wherein the print data comprises a character code and a control code written in a page description language.

Claim 8 (original): An apparatus according to claim 6, wherein the printer prints the bit map data transferred by said apparatus.

Claim 9 (original): An apparatus according to claim 6, wherein the printer interprets the print data transferred by said apparatus, converts the interpreted data into bit map data, and prints the converted bit map data.

Claim 10 (original): An apparatus according to claim 6, further comprising means for setting the first or the second mode.

Claim 11 (amended): A computer-executed method of processing information [carrier] carried out in an information processing apparatus [which] that transfers print data to a printer, said method comprising the steps of:

Q1 determining whether the print data is to be transferred to the printer in a first mode or in a second mode; and

converting the print data into bit map data and transferring the converted bit map data to the printer when said determining step determines that the print data is to be transferred in the first mode, and converting the print data into print data which can be interpreted by the printer and transferring the converted data to the printer when said determining step determines that the print data is to be transferred in the second mode,

wherein the converted data in the second mode includes information indicative of a data type, and wherein the first mode is a mode in which the apparatus controls an output style of the print data and the second mode is a mode in which the printer controls an output style of the print data.

Claim 12 (original): A method according to claim 11, wherein the print data comprises a character code and a control code written in a page description language.

Claim 13 (original): A method according to claim 11, further comprising the step of controlling the printer to print the bit map data transferred in said converting and transferring step.

Q1 Claim 14 (original): A method according to claim 11, further comprising the step of controlling the printer to interpret the print data transferred in said converting and transferring step, convert the interpreted data into bit map data, and print the converted bit map data.

Claim 15 (original): A method according to claim 11, further comprising the step of setting the first or the second mode.

Claim 16 (amended): A computer-executed method of processing information carried out in an information processing apparatus [which] that transfers print data to a printer, said method comprising the steps of:

determining whether the print data is to be transferred to the printer in a first mode or in a second mode;

converting the print data using either a first conversion process for converting the print data into bit map data or a second conversion process for converting the print data into print data which can be interpreted by the printer in response to a determination made in said determining step, wherein the data resulting from the second conversion process includes information indicative of a data type; and

transferring the converted bit map data or the converted print data to the printer,

wherein the first mode is a mode in which the apparatus controls an output style of the print data and the second mode is a mode in which the printer controls an output style of the print data.

Q1
Claim 17 (original): A method according to claim 16, wherein the print data comprises a character code and a control code written in a page description language.

Claim 18 (original): A method according to claim 16, further comprising the step of controlling the printer to print the bit map data transferred in said transferring step.

Claim 19 (original): A method according to claim 16, further comprising the step of controlling the printer to interpret the print data transferred in said transferring step, convert the interpreted data into bit map data, and print the converted bit map data.

Claim 20 (original): A method according to claim 16, further comprising the step of setting the first or the second mode.

Claim 21 (amended): A memory medium storing a program [which] that, when loaded into and executed by a programmable apparatus, causes the apparatus to

perform a method of processing information carrier out in an information processing apparatus which transfers print data to a printer, said method comprising the steps of:

determining whether the print data is to be transferred to the printer in a first mode or in a second mode; and

converting the print data into bit map data and transferring the converted bit map data to the printer when said determining step determines that the print data is to be transferred in the first mode, and converting the print data into print data which can be interpreted by the printer and transferring the converted data to the printer when said determining step determines that the print data is to be transferred in the second mode,

wherein the converted data in the second mode includes information indicative of a data type, and wherein the first mode is a mode in which the apparatus controls an output style of the print data and the second mode in which the printer controls an output style of the print data.

Claim 22 (original): A memory medium according to claim 21, wherein the print data comprises a character code and a control code written in a page description language.

Claim 23 (original): A memory medium according to claim 21, wherein the memory further comprises the step of controlling the printer to print the bit map data transferred in said converting and transferring step.

Claim 24 (original): A memory medium according to claim 21, wherein the method further comprises the step of controlling the printer to interpret the print data transferred in said converting and transferring step, convert the interpreted data into bit map data, and print the converted bit map data.

Claim 25 (original): A memory medium according to claim 21, wherein the method further comprises the step of setting the first or the second mode.

Q. Claim 26 (amended): A memory medium storing a program [which] that, when loaded into and executed by a programmable apparatus, causes the apparatus to perform a method of processing information carried out in an information processing apparatus [which] that transfers print data to a printer, said method comprising the steps of:

determining whether the print data is to be transferred to the printer in a first mode or in a second mode;

converting the print data using either a first conversion process for converting the print data into bit map data or a second conversion process for converting the print data into print data which can be interpreted by the printer in response to a determination made in said determining step, wherein the data resulting from the second conversion process includes information indicative of a data type; and

transferring the converted bit map data or the converted print data to the printer,

wherein the first mode is a mode in which the apparatus controls an output style of the print data and the second mode is a mode in which the printer controls an output style of the print data.

Q1 Claim 27 (original): A memory medium according to claim 26, wherein the print data comprises a character code and a control code written in a page description language.

Claim 28 (original): A memory medium according to claim 26, wherein the method further comprises the step of controlling the printer to print the bit map data transferred in said transferring step.

Claim 29 (original): A memory medium according to claim 26, wherein the method further comprises the step of controlling the printer to interpret the print data transferred in said transferring step, convert the interpreted data into bit map data, and print the converted bit map data.

Claim 30 (original): A memory medium according to claim 26, wherein the method further comprises the step of setting the first or the second mode.

Claim 31 (amended): A program product which, when loaded into and executed by a programmable apparatus, causes the apparatus to perform a method of

processing information [carrier] carried out in an information processing apparatus [which] that transfers print data to a printer, said method comprising the steps of:

determining whether the print data is to be transferred to the printer in a first mode or in a second mode; and

Q, converting the print data into bit map data and transferring the converted bit map data to the printer when said determining step determines that the print data is to be transferred in the first mode, and converting the print data into print data which can be interpreted by the printer and transferring the converted data to the printer when said determining step determines that the print data is to be transferred in the second mode,

wherein the converted data in the second mode includes information indicative of a data type, and wherein the first mode is a mode in which the apparatus controls an output style of the print data and the second mode is a mode in which the printer controls an output style of the print data.

Claim 32 (original): A program product according to claim 31, wherein the print data comprises a character code and a control code written in a page description language.

Claim 33 (original): A program product according to claim 31, wherein the memory further comprises the step of controlling the printer to print the bit map data transferred in said converting and transferring step.

Q Claim 34 (original): A program product according to claim 31, wherein the method further comprises the step of controlling the printer to interpret the print data transferred in said converting and transferring step, convert the interpreted data into the bit map data, and print the converted bit map data.

Claim 35 (original): A program product according to claim 31, wherein the method transferring step, convert the interpreted data into bit map data, and print the converted bit map data further comprises the step of setting the first or the second mode.

Claim 36 (amended): A program product [which] that, when loaded into and executed by a programmable apparatus, causes the apparatus to perform a method of processing information carried out in an information processing apparatus [which] that transfers print data to a printer, said method comprising the steps of:

determining whether the print data is to be transferred to the printer in a first mode or in a second mode;

converting the print data using either a first conversion process for converting the print data into bit map data or a second conversion process for converting the print data into print data which can be interpreted by the printer in response to a determination made in said determining step, wherein the data resulting from the second conversion process includes information indicative of a data type; and

transferring the converted bit map data or the converted print data to the printer,

wherein the first mode is a mode in which the apparatus controls an output style of the print data and the second mode is a mode in which the printer controls an output style of the print data.

a
Claim 37 (original): A program product according to claim 36, wherein the print data comprises a character code and a control code written in a page description language.

Claim 38 (original): A program product according to claim 36, wherein the method further comprises the step of controlling the printer to print the bit map data transferred in said transferring step.

Claim 39 (original): A program product according to claim 36, wherein the method further comprises the step of controlling the printer to interpret the print data transferred in said transferring step, convert the interpreted data into bit map data, and print the converted bit map data.

Claim 40 (original): A program product according to claim 36, wherein the method further comprises the step of setting the first or the second mode.

Claims 41 and 42 (canceled)

Claim 43 (amended): An apparatus according to claim 1, wherein, in the first mode, the print data is provided in a page description language.

Claims 44 and 45 (canceled)

Claim 46 (amended): An apparatus according to claim 6, wherein, in the first mode, the print data is provided in a page description language.

Claims 47 and 48 (canceled)

Claim 49 (amended): A method according to claim 11, wherein, in the first mode, the print data is provided in a page description language.

Claims 50 and 51 (canceled)

Claim 52 (amended): A method according to claim 16, wherein, in the first mode, the print data is provided in a page description language.

Claims 53 and 54 (canceled)

Claim 55 (amended): A memory medium according to claim 21, wherein, in the first mode, the print data is provided in a page description language.

Claims 56 and 57 (canceled)

Claim 58 (amended): A memory medium according to claim 26, wherein, in the first mode, the print data is provided in a page description language.

Claims 59 and 60 (canceled)

Claim 61 (amended): A program product according to claim 31, wherein, in the first mode, the print data is provided in a page description language.

Claims 62 and 63 (canceled)

Claim 64 (amended): A program product according to claim 36, wherein, in the first mode, the print data is provided in a page description language.

Claim 65 (amended): A system comprising an information processing apparatus and a printer, wherein said information processing apparatus transfers print data to the printer and includes:

a determiner for determining whether the print data is to be transferred to the printer in a first mode or in a second mode; and

a controller, arranged for causing said information processing apparatus to convert the print data into bit map data and to transfer the converted bit map

data to the printer when said determiner determines that the print data is to be transferred in the first mode, and for causing said information processing apparatus to convert the print data into print data which can be interpreted by the printer and to transfer the converted print data to the printer when said determiner determines that the print data is to be transferred in the second mode,

wherein the converted print data in the second mode includes information indicative of a data type, and

wherein the first mode is a mode in which said information processing apparatus controls an output style of the print data and the second mode is a mode in which the printer controls an output style of the print data.

Q1
Claim 66 (amended): A system comprising an information processing apparatus and a printer, wherein said apparatus transfers print data to the printer and includes:

a determiner for determining whether the print data is to be transferred to the printer in a first mode or in a second mode;

a first converter, arranged for converting the print data into bit map data;

a second converter, arranged for converting the print data into converted print data that is interpretable by the printer, wherein the converted print data includes information indicative of a data type; and

a controller, arranged for causing said apparatus to (1) control either said first converter or said second converter to convert the print data in response to a determination made by said determiner, and (2) transfer the converted bit map data or the converted print data to the printer, depending on whether said first converter or said second converter is controlled,

wherein the first mode is a mode in which said information processing apparatus controls an output style of the print data and the second mode is a mode in which the printer controls an output style of the print data.

Claim 67 (new): An information processing apparatus that transfers print data to a printer, said apparatus comprising:

determining means for determining whether the print data is to be transferred to the printer in a first mode or in a second mode; and

control means for causing said apparatus to convert the print data into bit map data and to transfer the converted bit map data to the printer when said determining means determines that the print data is to be transferred in the first mode, and to convert the print data into print data that is interpretable by the printer and to transfer the converted data to the printer when said determining means determines that the print data is to be transferred in the second mode,

wherein the converted data in the second mode includes information indicative of a data type, and wherein, in the first mode, the print data is provided in a page description language.

Claim 68 (new): An apparatus according to claim 67, wherein the print data comprises a character code and a control code written in a page description language.

Claim 69 (new): An apparatus according to claim 67, wherein the printer prints the bit map data transferred by said apparatus.

Q1 Claim 70 (new): An apparatus according to claim 67, wherein the printer interprets the print data transferred by said apparatus, converts the interpreted data into bit map data, and prints the converted bit map data.

Claim 71 (new): An apparatus according to claim 67, further comprising means for setting the first or the second mode.

Claim 72 (new): An apparatus according to claim 67, wherein the first mode is a mode in which said apparatus controls an output style of the print data.

Claim 73 (new): An apparatus according to claim 67, wherein the second mode is a mode in which the printer controls an output style of the print data.

Claim 74 (new): An information processing apparatus that transfers print data to a printer, said apparatus comprising:

determining means for determining whether the print data is to be transferred to the printer in a first mode or in a second mode; and

first conversion means for converting the print data into bit map data;

second conversion means for converting the print data into print data that is be interpretable by the printer, wherein data resulting from a conversion by said second conversion means includes information indicative of a data type; and

control means for causing said apparatus (1) to control either said first conversion means or said second conversion means to convert the print data in response to a determination made by said determining means and (2) to transfer the converted bit map data or the converted print data,

wherein in the first mode, the print data is provided in a page description language.

Claim 75 (new): An apparatus according to claim 74, wherein the print data comprises a character code and a control code written in a page description language.

Claim 76 (new): An apparatus according to claim 74, wherein the printer prints the bit map data transferred by said apparatus.

Claim 77 (new): An apparatus according to claim 74, wherein the printer interprets the print data transferred by said apparatus, converts the interpreted data into bit map data, and prints the converted bit map data.

Claim 78 (new): An apparatus according to claim 74, further comprising means for setting the first or the second mode.

Q1
Claim 79 (new): An apparatus according to claim 74, wherein the first mode is a mode in which said apparatus controls an output style of the print data.

Claim 80 (new): An apparatus according to claim 74, wherein the second mode is a mode in which the printer controls an output style of the print data.
